



PROCESS SPECIFICATION

ERA HELICOPTERS, INC.

GULF COAST DIVISION
LAKE CHARLES, LOUISIANA

PROCESS SPECIFICATION NO. 4003

ALUMINUM CONVERSION COATING

	<u>DATE</u>
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ALUMINUM CONVERSION COATING1. SCOPE

1.1 This specification establishes the requirements and procedures necessary to produce a corrosion resistant film on aluminum and aluminum alloys.

1.2 The alodizing treatment acts as a corrosion inhibitor, and a base for painting. The film that forms on a part is softer than the film formed by the anodizing (anodic) process, but it is acceptable as a protective coating.

WARNING:

Handle alodizing solutions with the usual precautions exercised with corrosive chemicals. Use respirators, goggles, rubber or neoprene gloves, boots and aprons while handling solutions. Do not allow the solution to touch your skin. Wash it off immediately if it does contact your skin. If the solutions contacts your eyes, wash with water, followed by an eye wash or boric acid. Obtain medical aid immediately. Do not allow swabs, paper, etc., used for applying or removing the solution, to dry. These are a fire hazard when dried. Immediately after use, soak swabs thoroughly in water before discarding them.

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2. MATERIALS REQUIRED

- 2.1 Alodine 1201, Turco or Am Chem.
- 2.2 Cheesecloth, or new rags with less than 0.75 percent oil.
- 2.3 Methyl Ethyl Ketone (MEK).

3. APPLICATION OF ALODIZING SOLUTION

- 3.1 Apply solution evenly and liberally with a fiber or Nylon brush, cheesecloth, spraying equipment, or by dipping.
- 3.2 Allow the solution to remain in contact with the part for 3 to 5 minutes in order to form the coating. For local application, prevent the solution from drying by gently blotting with cheesecloth moistened with solution. The coating forms more rapidly on warm parts.
- 3.3 Rinse with clean water by gently contacting the surface with wet (not saturated) clean cheesecloth, or by flood rinsing. CAUTION: Exercise care when rinsing and drying, to avoid scratching or removing the coating, which is tender when freshly formed.
- 3.4 Gently contact the surface with clean, dry cheesecloth to absorb excess liquid, or blow off excess with air.
- 3.5 Air dry thoroughly. Filtered hot air (160 degrees F. maximum) for 15 minutes is recommended.
- 3.6 Apply final finish, or begin adhesive bonding, as soon as possible after drying. Handle parts with clean gloves and keep parts clean and dry, to avoid surface contamination.